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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/407,218 09/27/99 BABROV

Y M-5692US

EXAMINER

024251 IM52/0705
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ART UNIT PAPER NUMBER

1772
DATE MAILED:

07/05/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

09/407,218

Applicant(s)

BABROV ET AL.

Examiner

Shalie A. Manlove

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☒ Claims 8-10 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892)
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 6.
- 18) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 19) ☐ Notice of Informal Patent Application (PTO-152)
- 20) ☐ Other:

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DETAILED ACTION

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:

I. Claims 1-7, drawn to a product, classified in class 428, subclass 34.1+.

II. Claims 8-10, drawn to a method, classified in class 264, subclass 165+.

The inventions are distinct, each from the other because of the following reasons:

Inventions in Group I and Group II are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the product as claimed can be made by another and materially different process such as photopolymerization. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

Because these inventions are distinct for the reasons given above and the search required for Group I is not required for Group II, restriction for examination purposes as indicated is proper.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

During a telephone conversation with Ms. Roberta Saxon on June 28, 2001 a provisional election was made without traverse to prosecute the invention of Group I, claims 1-7. Applicant in replying to this Office action must make affirmation of this election. Claims 8-10 are withdrawn

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from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a petition under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-4, 7 are rejected under 35 U.S.C. 102(b) as being anticipated by Makow (WO 9115800).

As to claim 1, Makow teaches a decorative material comprising two polarizers (fig 1, #2), having arbitrary directions of their polarization axes (p. 7 line 34-p.8 Line 2), and phase shifting plates placed between the polarizers (fig. 1, #5), having variable thickness or different orientations of their optical axes (p.6 lines1-3, p.9 lines 29-30) and forming a pattern or a mosaic structure (p.15 lines 10-19). The material is distinguished by that the phase shifting plate represents a continuous layer of an optically anisotropic material containing regions differing by the value of phase shift and/or the direction of fast optical axes (p.13 line 2-p. 14 line 16, and abstract).

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As to claim 2, Makow teaches a decorative material distinguished by that the optically anisotropic material represents a molecularly oriented film deposited onto an optically isotropic base (p. 7 lines 22-25 and abstract lines 4-5).

As to claim 3, Makow teaches a decorative material comprising two polarizers (fig 1, #2), having arbitrary directions of their polarization axes (p. 7 line 34-p.8 Line 2), and phase shifting plates placed between the polarizers (fig. 1, #5), having variable thickness or different orientations of their optical axes (p.6 lines1-3, p.9 lines 29-30) and forming a pattern or a mosaic structure (p.15 lines 10-19). The material is distinguished by that the phase shifting plate represents a continuous layer of a homogeneous anisotropic material, while, one or both polarizes may contain several elements differing by the directions of their polarization axes (p.11 lines 25-28).

As to claim 4, Makow teaches a decorative material distinguished by that the anisotropic film is placed in a transparent vessel filled with a transparent or weakly colored liquid medium, while polarizers are placed on the inner or outer surface of vessel (p. 17 lines 18-30, fig 14).

As to claim 7, Makow teaches a decorative material comprising two polarizers (fig 1, #2), having arbitrary directions of their polarization axes (p. 7 line 34-p.8 Line 2), and phase shifting plates placed between the polarizers (fig. 1, #5), having variable thickness or different orientations of their optical axes (p.6 lines1-3, p.9 lines 29-30) and forming a pattern or a mosaic structure (p.15 lines 10-19). The material is distinguished by that one of the polarizers is replaced by a reflecting surface (p. 12 lines 22-25, fig. 2).

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Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

4. Claims 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Makow (WO 9115800) as applied to claim 1 above, and further in view of Jones et al (3,965,030).

As to claim 5, Makow teaches the invention substantially as claimed in paragraph 1. Makow fails to disclose a decorative material distinguished by that one or both polarizers represent a film of molecularly oriented organic substance deposited either immediately onto an optically anisotropic material or onto a transparent sublayer predeposited onto the surface of an anisotropic material. Jones et al teach a decorative material distinguished by that one or both polarizers represent a film of molecularly oriented organic substance deposited either immediately onto an optically anisotropic material or onto a transparent sublayer predeposited onto the surface of an anisotropic material for the purpose of producing display devices (col. 3, lines 8-68, fig 1 and 2).

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It would have been obvious to one of ordinary skill in the art at the time applicant's invention was made to have provided Makow a decorative material distinguished by that one or both polarizers represent a film of molecularly oriented organic substance deposited either immediately onto an optically anisotropic material or onto a transparent sublayer predeposited onto the surface of an anisotropic material in order to produce display devices using electro-optical substances as taught by Jones et al.

As to claim 6, Makow teaches the invention substantially as claimed in paragraph 1. Makow fails to teach a decorative material distinguished by that the molecularly oriented film is represented by a layer of an organic substance comprising lyotropic liquid crystals or thermotropic liquid crystals having the temperature of transition from solid to LC state above the ambient temperature. Jones et al teach a decorative material distinguished by that the molecularly oriented film is represented by a layer of an organic substance comprising lyotropic liquid crystals or thermotropic liquid crystals having the temperature of transition from solid to LC state above the ambient temperature for the purpose of producing a display or animation (abstract, and col. 1, lines 38-54).

It would have been obvious to one of ordinary skill in the art at the time applicant's invention was made to have provided Makow a decorative material distinguished by that the molecularly oriented film is represented by a layer of an organic substance comprising lyotropic liquid crystals or thermotropic liquid crystals having the temperature of transition from solid to LC state above the ambient temperature in order to produce a display or animation as taught by Jones et al.

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Conclusion


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shalie A. Manlove whose telephone number is (703) 308-8275. The examiner can normally be reached on M-F 8:00- 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Y. Pyon can be reached on (703) 308-4251. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-3599 for regular communications and (703) 305 3599 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

Shalie A. Manlove
Examiner
Art Unit 1772

July 2, 2001


HAROLD PYON
SUPERVISORY PATENT EXAMINER
1772

7/2/01